



MPV/SPV INSTALLATION, OPERATION, AND MAINTENANCE INSTRUCTIONS

MODELS:
SPV200, SPV300,
MPV200/4, MPV200/8, MPV300/4,
MPV300/6, MPV300/8, MPV300/12
161R

READ AND SAVE THESE INSTRUCTIONS

CAUTION

**For General Ventilating Use Only.
Do Not Use to Exhaust Hazardous or
Explosive Materials and Vapors.**

WARNING

**TO REDUCE THE RISK OF FIRE, ELEC-
TRIC SHOCK, OR INJURY TO PERSONS,
OBSERVE THE FOLLOWING:**

- A. Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.
- B. Before servicing or cleaning unit, switch power off at service panel and lock service panel to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.

In addition to the following manufacturer's instructions, it is necessary to comply with federal, state, and local government codes. Your purchase of this American ALDES ventilation system represents an investment in the health and comfort of the occupants, as well as an investment in the protection of the building from the damaging effects of excessive indoor humidity.

This model of central exhaust ventilator, whether MPV (Multi-Port Ventilator) or SPV (Single-Port Ventilator) is intended for installation in a remote location or mechanical room to provide quiet exhaust of stale, humid, or otherwise polluted air from bathrooms, the kitchen, laundry, or storage rooms, via exhaust grilles and ducting to the centrally located fan, which is ducted to the outdoors. Some models may also be used as supply ventilators or recirculating central ventilators for the introduction of outdoor air, raising the temperature of the fresh air by mixing with recirculated indoor air. When used with adjustable balancing grilles or ALDES' CAR™, (Constant Airflow Regulators), and compatible roof/wall caps, ducting, etc, the fan is the heart of a complete pre-engineered ventilation system.

System design : *Satisfactory performance of a central exhaust ventilation system requires the proper integration of all the components, compatible exhaust grilles, and wall/roof caps, proper duct design for friction losses, consideration of acoustic and vibration properties of the fan and its mounting, acoustic properties of the exhaust grilles, consideration of the mode of operation, whether continuous, or automatically controlled by timer, dehumidistat, occupancy sensor, etc., installation in a heated or unheated space, with consideration for the potential of condensation in the ducting or fan housing.*

Inspect the carton upon receipt, to insure the fan has not been damaged in transit. If damaged, it is the responsibility of the recipient to file a damage claim with the carrier. American ALDES Ventilation Corporation is not responsible for damage incurred during shipment.

Handle the unit with care to prevent damage to the housing and other components. Store the unit indoors if possible. If outdoor storage is required, protection against moisture and dirt is necessary.

Unpack the unit, taking care to look for any loose components among the packing material. Make certain that the fan housing and the blower is free of any loose packing material or small parts. If not removed before startup, damage and injury may result from solid objects discharged by the blower. Inspect for damage, loose or missing parts.

Install the unit in its final location. The fan may be installed in a mechanical room, crawl space or attic. It is designed to be placed on a flat surface, as shown in *Figure 1*, supported by its rubber feet to provide vibration isolation. Additional foam may be required to completely isolate vibration. Alternatively, it may be suspended as shown in *Figure 2*, using threaded rods, perforated steel strips, or 90 lb. load-rated chains. Sufficient room (minimum 15") should be left above the fan to allow

removal of the top panel with the attached blower assembly; otherwise servicing will require the complete disassembly of the duct and mounting rods.

Ducting may be flexible or rigid, depending on local codes. If permitted by code, insulated flexible ducting is recommended for at least several feet on each duct connection, to limit fan noise at the outlet grilles. Ducting should conform to NFPA 90A and meet the requirements of Underwriters Laboratory as a Class O or Class 1 duct to specification UL 181, Standard for Factory-Made Air Ducts and Duct Connectors. Metal ducting must be sealed on both the end joints and longitudinal seams to assure proper airflows at the exhaust grilles.

COLD CLIMATE PRECAUTIONS

If installed in an unheated space, in severe climates, there is a possibility of condensation forming in the fan housing or ducting components. The housing is insulated to prevent condensation in the fan housing, but should condensation occur as a result of severely cold temperatures, or cyclical operation of the fan, a condensation drain can be installed. Some models are provided with a drain. Others can be retrofitted. Condensation can be avoided by continuous operation of the fan. If operated intermittently, the fan housing will cool down, even though it is insulated, and condensation may occur inside the fan housing. The discharge must be fitted with a backdraft damper at the fan or roof/wall cap to limit slowly exfiltrating air. A backdraft damper installed at each exhaust grille will be even more effective in reducing the potential for condensation when the fan is cycled on and off. Insulated ducting must be used where exposed to cold attic or crawl space temperatures, to avoid condensation in the ducting.

WARNING

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

A. Installation Work and Electrical Wiring Must Be Done By Qualified Person(s) In Accordance With All Applicable Codes And Standards, Including Fire-Rated Construction.

B. Sufficient air is needed for proper combustion and exhausting of gases

through the flue (chimney) of fuel burning equipment to prevent backdrafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.

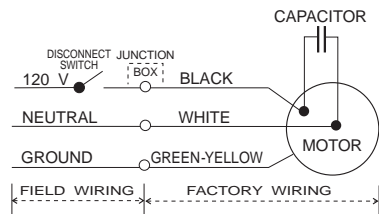
C. When cutting or drilling into wall or

ceiling, do not damage electrical wiring and other hidden utilities.

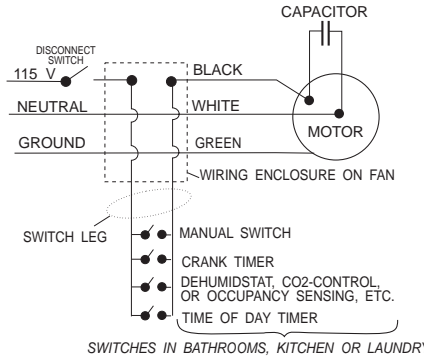
D. Ducted fans must always be vented to the outdoors.

E. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application.

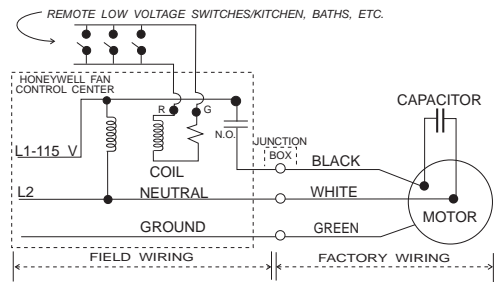
F. NEVER place a switch where it can be reached from a tub or shower.



STANDARD WIRING INSTALLATION



LINE VOLTAGE REMOTE SWITCHING INSTALLATION



LOW VOLTAGE INSTALLATION

ELECTRICAL DATA	
SPV 200, MPV 200 Series	SPV 300, MPV 300 Series
120 V.	120 V.
60 Hz	60 Hz
1.2 Amp.	1.5 Amp.
125 W.	145 W.
1600 RPM	1500 RPM

WIRING

Provide disconnect switch in vicinity of fan, to permit servicing fan, in accordance with NEC and local codes.

Auxilliary switches and controls: For continuous use, such as multi-family ventilation systems, usually the fan is not controlled by the occupants. A control switch may be installed to be used only by the building owners

and maintenance staff.

For intermittent use, as in single family homes, the fan may be controlled remotely by switches in bathrooms, kitchen, etc. These may be line voltage switches wired in parallel to the disconnect switch serving the fan, or low-voltage switches connected to a fan relay center (SPST).

MAINTENANCE

Monthly: Clean the exhaust grilles and filters, if so equipped.

Annually: To ensure the maximum efficiency of the fan unit, is recommended to clean the inside of the fan box as well as the blower wheel.

CAUTION: Automatically operated device—to reduce risk of injury disconnect from the power supply before servicing.

DISASSEMBLY

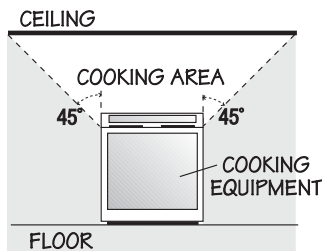
Turn off all power to the unit. The blower may be inspected and cleaned by removing the screws from the top panel. It may be necessary to disconnect the wiring from the junction box. Grasp the top panel and gently lift it straight up, until the blower housing is completely clear of the sides. The motor and blower assembly are now easily accessible for service.

DISCLAIMER

IT IS THE RESPONSIBILITY OF THE CONTRACTOR/INSTALLER TO DETERMINE THE SUITABILITY OF THIS EQUIPMENT WITH RESPECT TO THE POTENTIAL FOR BACK DRAFTING NATURALLY VENTED FLUE DEVICES AND/OR AFFECTING RADON ENTRY.

For installations in which the fan is connected to a range hood, or if an exhaust grille connected to the fan is located above or near the cooking surface, as shown below, be sure to observe the following safety warnings:

CAUTION



WARNING

TO REDUCE THE RISK OF FIRE, USE ONLY METAL DUCTWORK.
(Use only galvanized steel ductwork.)

Use only galvanized steel ductwork in accordance with all applicable codes.

(Note: If the fan is not connected to a range hood, or a grille in the vicinity of the cooking surface, other approved ducting may be used as described in "Ducting" section of basic instructions.)

WARNING

TO REDUCE THE RISK OF A RANGE TOP GREASE FIRE:

- A.** Never leave surface units unattended at high settings. Boilovers cause smoking and greasy spillovers that may ignite. Heat oils slowly on low or medium settings.
- B.** Always turn hood ON when cooking at high heat or flambeing food (i.e. Crepe Suzette, Cherries Jubilee, Peppercorn Beef Flambe).
- C.** Clean ventilating fans frequently. Grease should not be allowed to accumulate on fan or filter.
- D.** Use proper pan size. Always use cookware appropriate for the size of the surface element.

WARNING

TO REDUCE THE RISK OF INJURY TO PERSONS IN THE EVENT OF A RANGE TOP GREASE FIRE, OBSERVE THE FOLLOWING^a:

- A.** SMOTHER FLAMES with a close-fitting lid, cookie sheet, or metal tray, then turn off the burner. **BE CAREFUL TO PREVENT BURNS.** If the flames do not go out immediately **EVACUATE AND CALL THE FIRE DEPARTMENT.**
- B.** NEVER PICK UP A FLAMING PAN — You may be burned.
- C.** DO NOT USE WATER, including wet dishcloths or towels — a violent steam explosion will result.
- D.** Use an extinguisher **ONLY** if:
 - 1. You know you have a Class ABC extinguisher, and you already know how to operate it.
 - 2. The fire is small and contained in the area where it started.
 - 3. The fire department is being called.
 - 4. You can fight the fire with your back to an exit.

^aBased on "Kitchen Firesafety Tips" published by NFPA.

BACKDRAFTING

In especially tight homes heated with naturally vented appliances, such as gas, oil or wood-fired furnaces, boilers, stoves or fireplaces, the exhaust system may produce sufficient negative pressure indoors to induce the backdrafting of flue gases. This is quite a common, though intermittent occurrence, with conventional exhaust systems, such as vented kitchen range hoods, clothes dryers, bath fans, etc. In

the case of continuous exhaust, even though often at lower flow rates, the potential for backdrafting the flue of these appliances does exist, and represents a dangerous situation. The National Fuel Gas Code, available from the American Gas Association, Appendix H, provides a Recommended Procedure for Safety Inspection of an Existing Appliance Installation. This procedure should be followed to determine

the presence of adequate combustion air, while all exhaust fans are operating at maximum speed, and all doors and windows are closed.

In the event that backdrafting occurs, steps must be taken to provide sufficient combustion air to the furnace or boiler, following the guidelines of the National Fuel Gas Code and all state and local codes.

WARRANTY

The entire unit is guaranteed for 3 years, from date of shipment, against all manufacturing defects provided the material has been installed and operated per manufacturer's instructions and under normal conditions. Warranty is limited to the repair or replacement of the material upon its return freight paid to our factory. *This warranty is not transferable and is limited to the original end user.*

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4" Intake Duct from grille to fan Maximum Duct Length from grille to fan (Feet)			Fan Discharge Duct to outdoors (with low pressure drop vent hood)	
AIRFLOW (CFM)	4" SMOOTH DUCT	4" FLEXIBLE DUCT	TOTAL EXHAUST RATE (CFM)	MAXIMUM LENGTH (FEET)
10	900	640	75 to 150 CFM	25'
15	400	300		
20	260	180	MPV 200 Models 150 to 250 CFM	W/ 6" DUCT: 10'
25	175	120		
30	130	85		
35	95	65	MPV 300 Models 150 to 330 CFM	W/8" DUCT: 10'
40	75	50		
45	60	40		
50	50	30		

For each 4" elbow, deduct 3 feet.